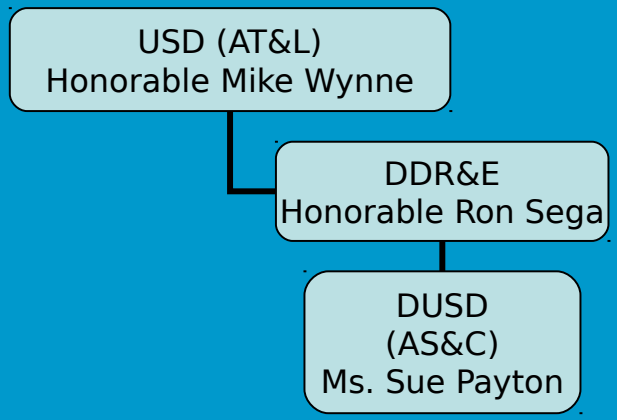
Advanced Concept Technology Demonstration (ACTD)



Rapidly placing relevant, mature technology into the hands of Joint and Coalition Warfighters

---

FY 2005 ACTD Sponsored by NDIA

Actionable Situational Awareness Pull (ASAP)

UNCLASSIFIED

Mark Peterson

Head, Program Resources & Integration

Deputy Under Secretary of Defense

Advanced Systems & Concepts

www.acq.osd.mil/actd

National Defense Industrial Association (NDIA) Conference

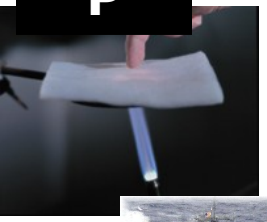
April 19, 2005

Advanced Systems & Concepts

Rapidly Placing Relevant Future Technology into the Hands of Joint and Coalition Warfighters

DoD's Resource for Technology Transition

DACP



Defense Acquisition Challenge Program (DACP): Aerogel for Ships: Fire barrier, IR Suppression, Blast Mitigation, Decreased Weight, Volume, Installation Costs, and

DPA Title III

Title III's Laser Protective Eyewear project established a domestic supplier for high performance infrared coatings for spectacles, goggles and

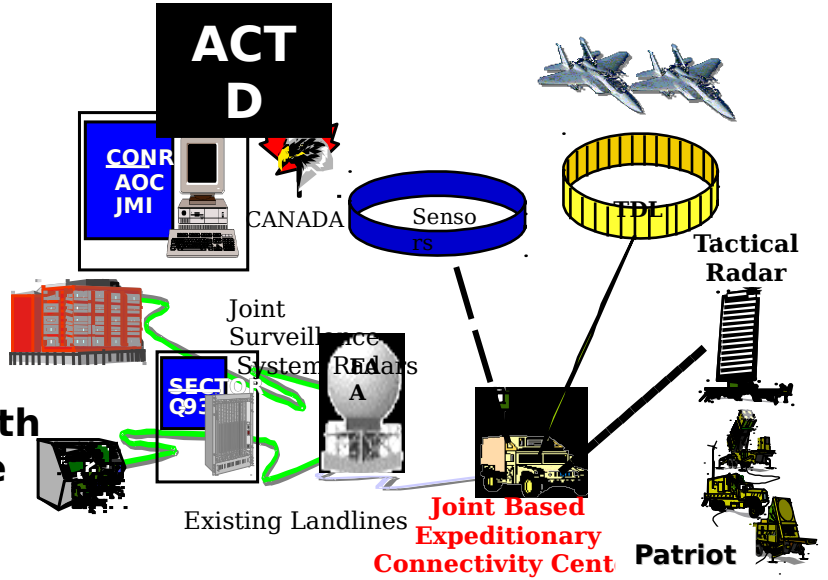
AS&C Partners with Services & Agencies to:

- **Match technology to warfighting needs– lab and industry outreach**
- **Overcome resistance to transformational concepts**
- **Ensure technology contributes to joint/ coalition capabilities**
- **Provide joint warfighters with options for integrating service capabilities**
- **Transfer DoD technology to the private sector: An industry on-ramp and access to meeting warfighter needs**

TTI

Technology Transition Initiative (TTI) used DARPA's **Water Purification Pen** technology to accelerate the technology fielding to Afghanistan, Iraq, and Tsunami Victims.

ACTD



Area Cruise Missile Defense (ACMD) ACTD integrates civilian and military sensors into a single air-defense common operational picture.

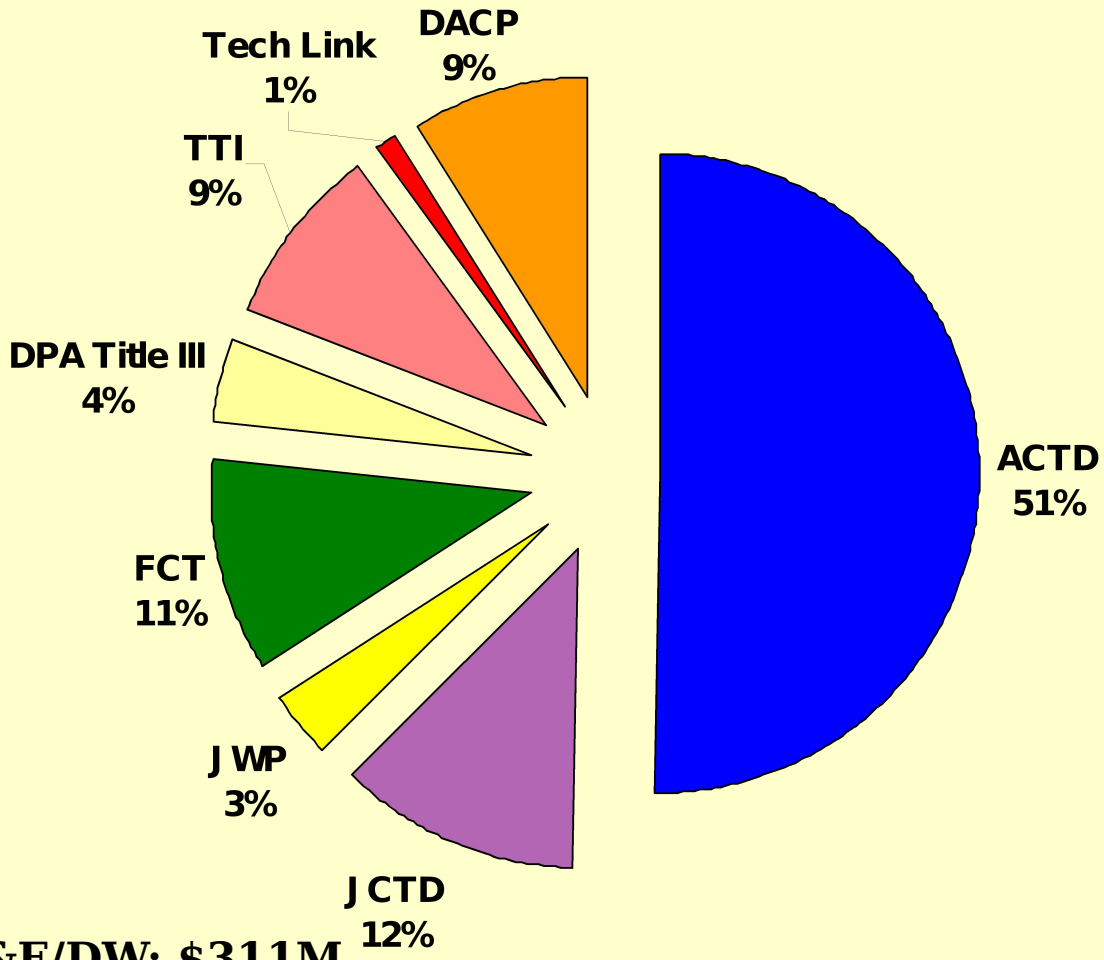
Video

ACTD Support to Joint Combatant Commanders

- **ACTDs rapidly field emergent mature technologies to joint warfighters**
  - Balanced emphasis on tailoring technology with associated Tactics, Techniques, & Procedures (TTPs) to user needs
- **Primary customers for ACTDs are joint Combatant Commanders**
  - Joint, Coalition, & transformational opportunities are priorities
  - ACTDs require a Lead Service/Agency and a CoCom Sponsor
- **ACTDs are not an acquisition/procurement program**
  - Charter is to minimize processes that delay rapid fielding of demonstrations
  - Overcoming resistance to transformational concepts
  - "Rack & Stack" voting process used to select Candidate slate inside the Planning, Programming, Budgeting & Execution (PPBE) process
    - Example: FY 2006 selection is in process now

FY 2006 AS&C Resources Overview (Direct Oversight of $325M) as of Feb 2005

Source: FY 2006 President's Budget



- **RDT&E/DW: $311M**
- DPA Title III Procurement: $13M
- OSD Maj Equip-ICTD Procure:

Program	$M
Advanced Concept Technology Demonstration (ACTD) (BA-3)	$164
Joint Capability Technology Demonstration (JCTD) (BA-3/4/5 & Procure)	$40
Joint Warfighting Program (JWP)-BA-3	$10
Foreign Comparative Testing (FCT)-BA-6	$36
Defense Production Act (DPA) Title III	$13
Technology Transition Initiative (TTI)-BA-3	$30
TechLink (BA-3)	$3
Defense Acquisition	

AS&C Programs

www.acq.osd.mil/asc

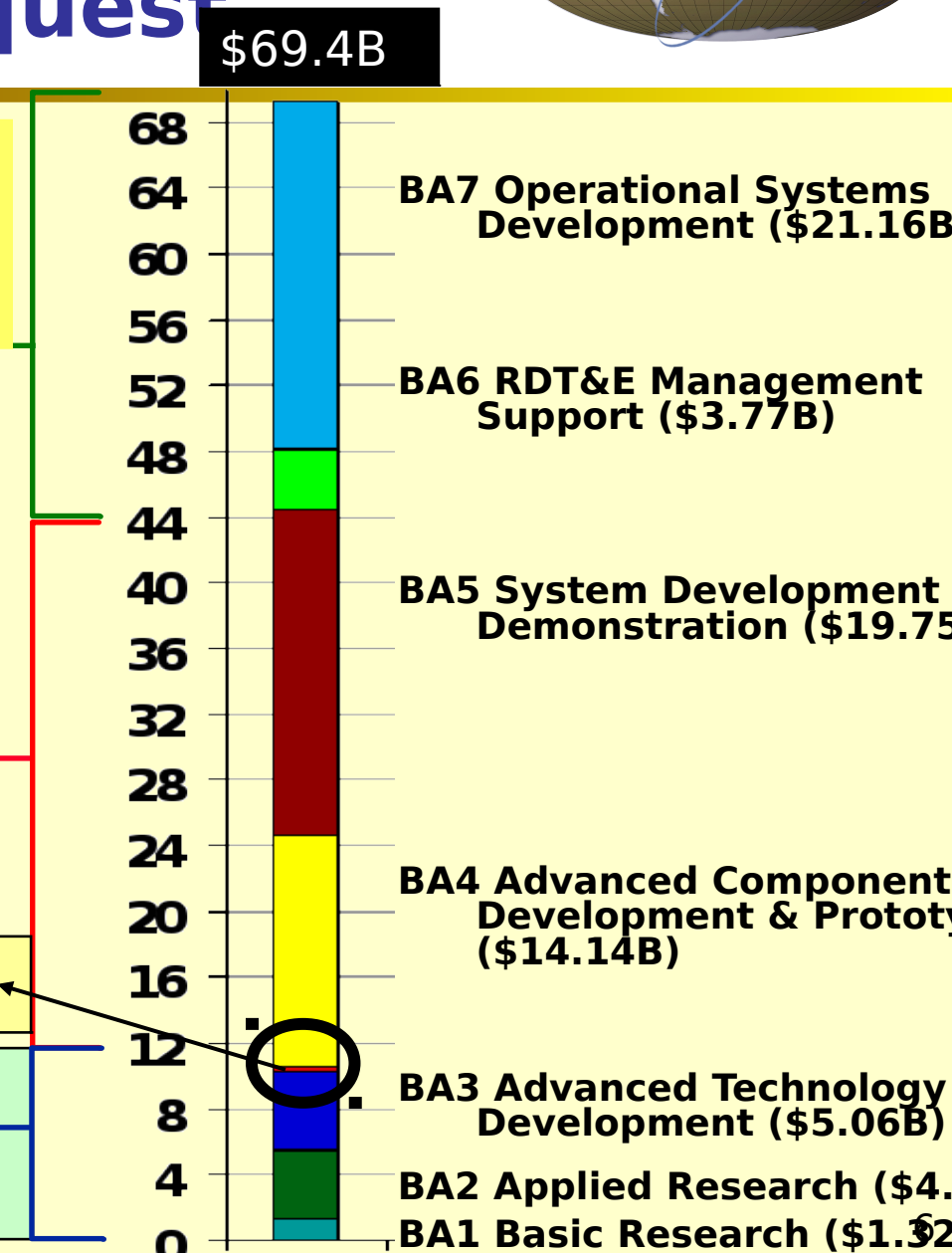
Program	Website	Phone
Advanced Concept Technology Demonstration (ACTD)	www.acq.osd.mil/actd	(703) 697 - 3568
DPA Title III	www.dtic.mil/dpatitle3	(703) 607 - 5314
Independent R & D	www.dtic.mil/ird	(703) 607 - 5314
Comparative Test Office	www.acq.osd.mil/cto	(703) 602 - 3740
Def Acquisition Challenge	https://bids.acqcenter.com/dacp	(703) 602 - 3739
Technology Transfer	www.dtic.mil/techtransit	(703) 607 - 5315
TechLink	www.techlinkcenter.org	(703) 607 - 5315
TechMatch	www.dodtechmatch.com	(703) 607 - 5315
NATIBO	www.dtic.mil/natibo	(703) 607 - 5315
Dual Use S&T	www.dtic.mil/dust	(703) 607 - 5315
Tech. Transition Initiative	www.acq.osd.mil/iti	(703) 607 - 5316

FY 2006 RDT&E President's Budget Request

OSD Defense Wide Transition Programs Highly Leveraged across Service and Agency Budgets.

Less than half a percent of RDT&E supports AS&C programs

Components (All RDT&E)	$B
USA	9.73
USAF	22.61
USN	18.04
Def Agency & SOCOM	18.97



(BA6 + BA7 = $24.93B)

Development (BA4 + BA5 = $33.89B)

Defense Wide DUSD (AS&C) RDT&E Support Totals $311 M (~200 M from ACTD/JCTD BA-3)

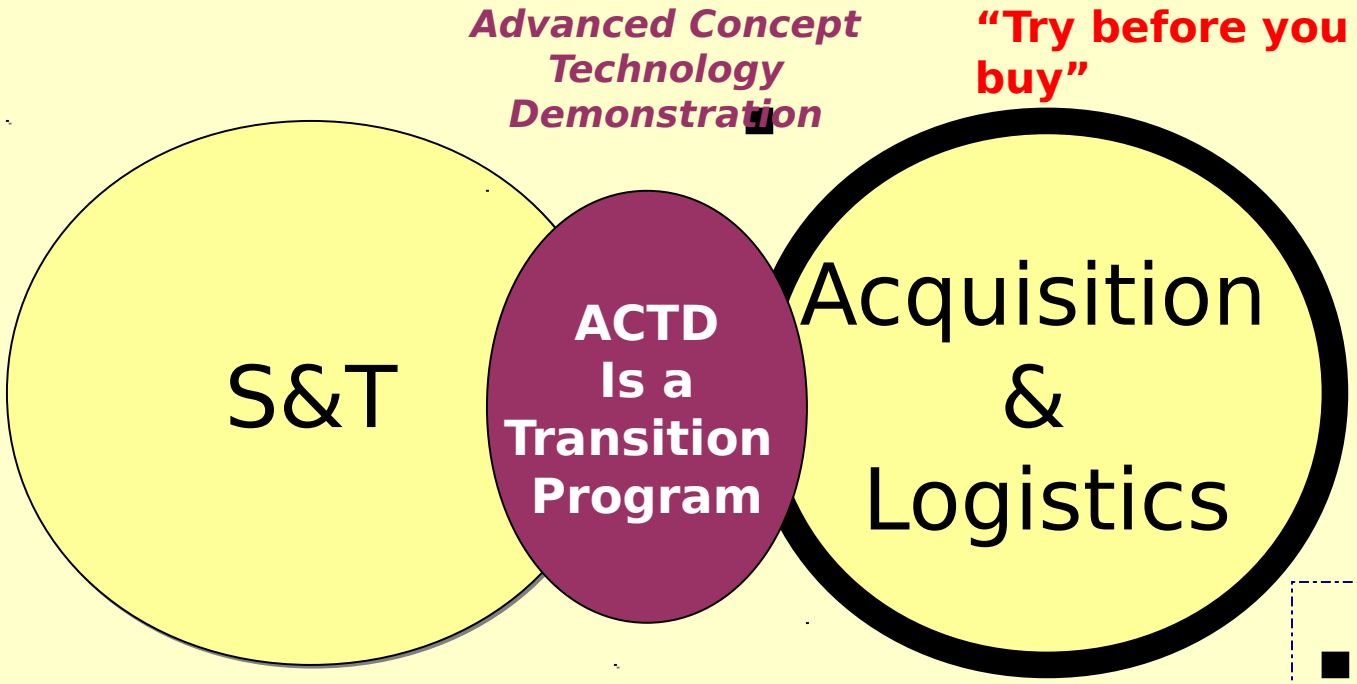
Technology Base (BA1 + 2) = $5.46B)

Science and Technology (BA1 + BA2 + BA3 = $10.52B)

15% of RDT&E

ACTD Projects Positioned between S&T & Acquisition

Filling the Gap between S&T and Acquisition for the CoCom Customer



- 71% of all ACTDs transition at least one product into a warfighting capability

nsition programs are not acquisition programs, and should not be science proje

Resource Perspective: Core Military Capabilities and Joint Enablers

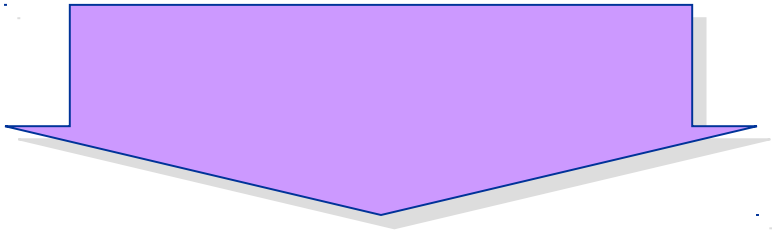
Characterization of CoCom Needs:

- Core Service-specific capabilities (~8

☆ **Joint military capabilities (~20%)**

TTI, DACP, FCT Targets

ACTD/JCTD Target Area



Nature of CoCom Joint Needs:

- Interactive, Multi-Service core military capa

☆ **Joint enabling capabiliti**

☆ **Unique Regional/Specified mission**

TTI, DACP, FCT Targets

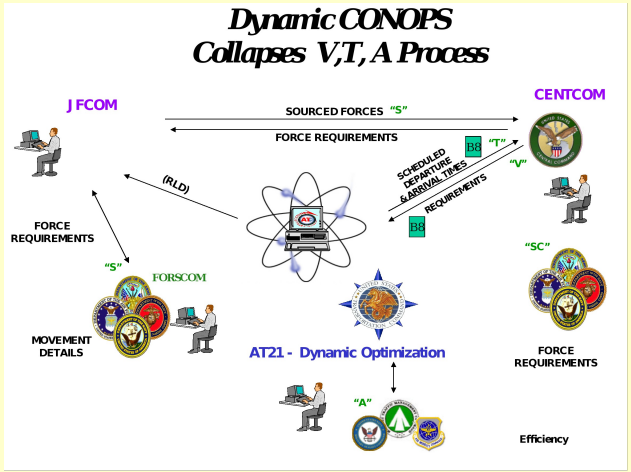
ACTD/JCTD Target Area

ACTD/JCTD Target Area

ACTD Examples & Highlights

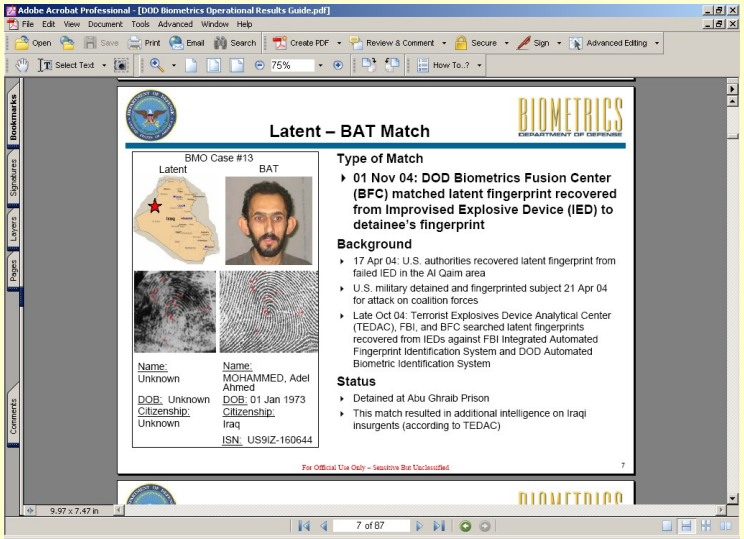
Theater Support Vessel

(2003-2006)



Agile Transportation for the 21st Century

(2002-2005)--Accelerated


Adobe Acrobat Professional - [DOD Biometrics Operational Results Guide.pdf]
Latent – BAT Match
BIOMETRICS
BMO Case #13
Latent
BAT
Type of Match
01 Nov 04: DOD Biometrics Fusion Center (BFC) matched latent fingerprint recovered from Improvised Explosive Device (IED) to detainee's fingerprint
Background
17 Apr 04: U.S. authorities recovered latent fingerprint from failed IED in the Al Qaim area
U.S. military detained and fingerprinted subject 21 Apr 04 for attack on coalition forces
Late Oct 04: Terrorist Explosives Device Analytical Center (TEDAC), FBI, and BFC searched latent fingerprints recovered from IEDs against FBI Integrated Automated Fingerprint Identification System and DOD Automated Biometric Identification System
Name: Unknown
DOB: Unknown
Citizenship: Unknown
Name: MOHAMMED, Adel Ahmed
DOB: 01 Jan 1973
Citizenship: Iraq
ISN: US9IZ-160644
Status
Detained at Abu Ghraib Prison
This match resulted in additional intelligence on Iraqi insurgents (according to TEDAC)
For Official Use Only – Sensitive But Unclassified

Biometrics Automated Toolset HUMINT and Counter-Intelligence Support Tools ACTD (1999-2003)

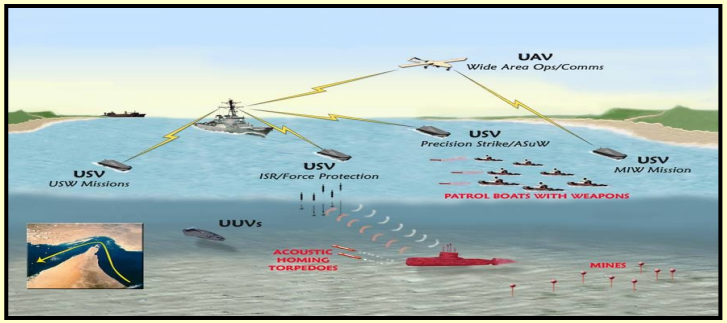
FY 2005 there are 79 Active ACTDs

ACTDs either:

- **Transition to Program of Record,**
- **Residual Meets Need of Warfighter, or**
- **Return to Technology Base**

Deliverables of an ACTD:

- **Concept of Operations {to include Tactics, Techniques, and Procedures (TTP)}**
- **Military Utility Assessment (MUA)**
- **Residual Leave Behind**



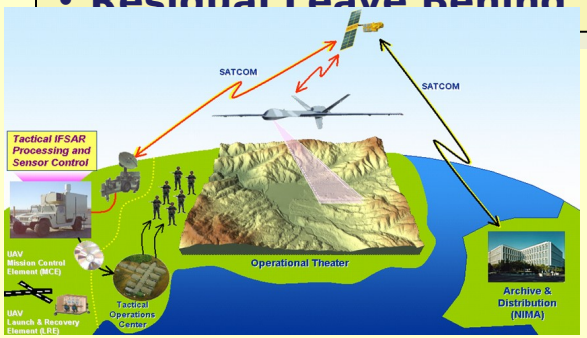
Spartan Scout

Midyear Start
(2002-2007)

Spartan Video

Active Denial System
(2002-2006)

ADS Video



Tactical Interferometric Synthetic Aperture Radar (TACT IFSAR ACTD)

(2003-Canceled 2005)

Joint Explosive Ordnance Disposal (JEOD) ACTD

(2002-2006)

COMPLETED ACTDs Deployed in Recent Conflicts

Updated Dec 2004

Completed ACTDs Used in Recent Conflicts	OAF	OEF	OIF	NE	O
➢ Adaptive Course of Action				X	X
➢ Advanced Joint Planning	X	X	X	X	X
➢ Airbase/Port Biological Detection			X	X	X
➢ Area Cruise Missile Defense					X
➢ Battlefield Awareness & Data Dissemination			X	X	X
➢ Chemical Add-On to Biological Detection			X	X	X
➢ Coastal Area Protection			X		X
➢ Coherent Analytical Computing Environment					X
➢ Common Spectral MASINT Exploitation				X	X
➢ Consequence Management	X	X	X	X	X
➢ Counterproliferation I			X	X	X
➢ Counterproliferation II				X	X
➢ Counter Sniper					X
➢ C4I for Coalition Warfare		X	X		X

Key

OAF - Operation Allied Force – Kosovo
OEF - Operation Enduring Freedom – Afghanistan
OIF - Operation Iraqi Freedom – Iraq
NE - NobleEagle - US Air Space
O - Other

Note: Other includes conflicts and operations like providing support to USFK, the Space Shuttle Columbia recovery operation and

COMPLETED ACTDs Deployed in Recent Conflicts

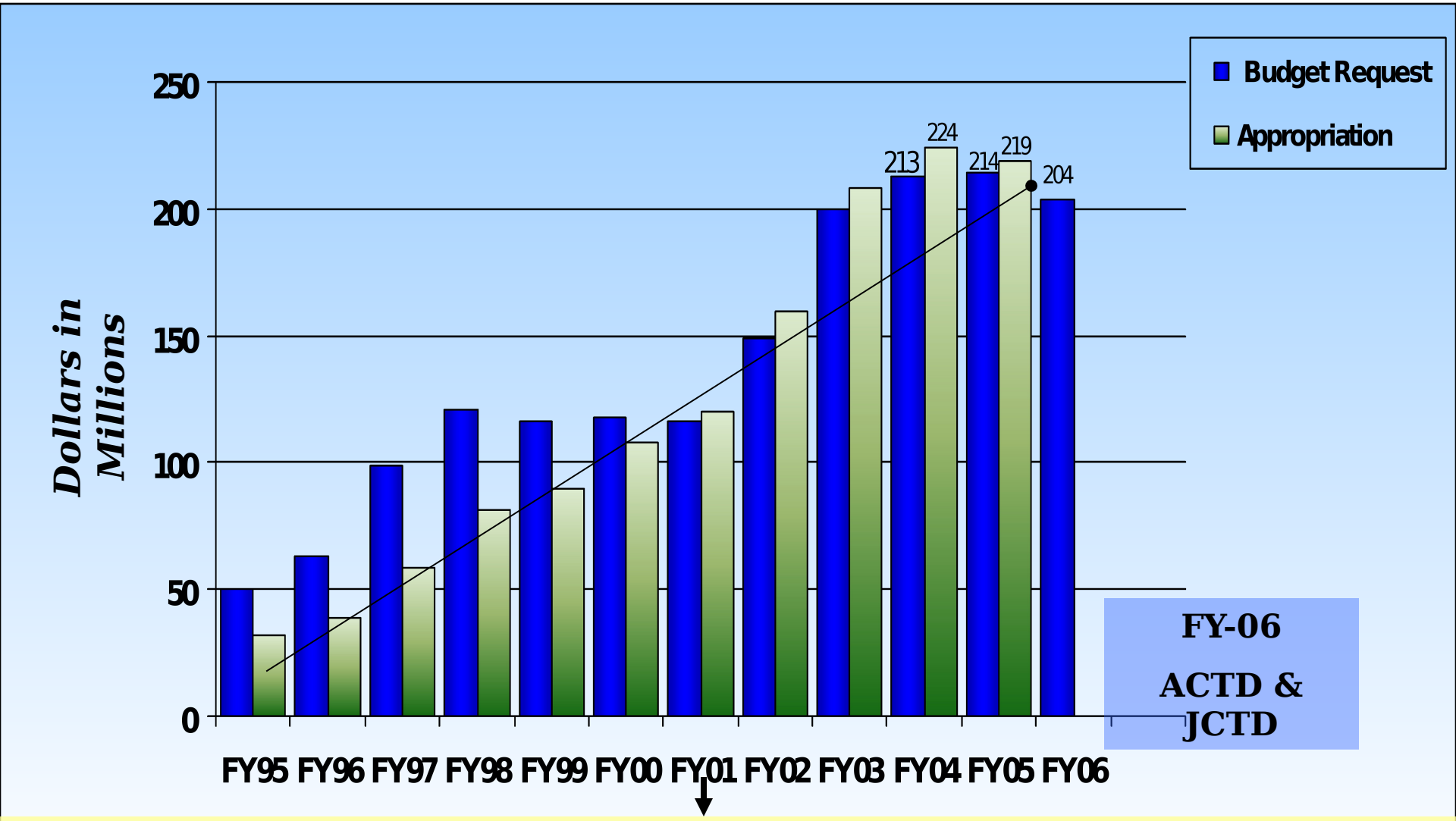
Completed ACTDs Used in Recent Conflicts	OAF	OEF	OIF	N
➢ Global Monitoring of Space ISR Systems				
➢ High Altitude Endurance UAV – Global Hawk			X	
➢ Human Intell & Counterintelligence Tool		X	X	X
➢ Info Assurance: Auto Intrusion Det Environment		X	X	X
➢ Integrated Collection Management			X	
➢ Joint Biological Remote Early Warning		X	X	
➢ Joint Combat Identification		X		
➢ Joint Logistics	X	X		
➢ Joint Medical Operations/Telemedicine				X
➢ Link-16	X	X	X	X
➢ Medium Altitude Endurance UAV – Predator		X	X	
➢ Military Ops in Urban Terrain		X	X	
➢ Navigation Warfare		X		
➢ Precision/Rapid Counter-MRL				
➢ Personnel Recovery Mission Software	X	X		
➢ Precision SIGINT Targeting	X	X	X	X
➢ Precision Targeting Identification				X
➢ Rapid Force Protection Initiative				X
➢ Small Unit Logistics				X
➢ Space Based Space Surveillance Operations				X
➢ Theater Air & Missile Defense Interoperability				
➢ Theater Precision Strike Operations			X	
➢ Unattended Ground Sensors		X	X	

ACTIVE ACTDs Deployed in Recent Conflicts

Active ACTDs Used in Recent Conflicts	OAF	OEF	OIF
➢ Active Network Intrusion Defense			
X			
➢ Adaptive Battlespace Awareness			
X X			
➢ Boundary Step		X	
➢ Coalition Theater Logistics		X	X
➢ Comm/Navigation Outage Forecast System		X	X
X X X			
➢ Computerized Operational MASINT Weather			X
X X			
➢ Contamination Avoid at Seaports of Debarkation			
X			
➢ Expendable Unmanned Aerial Vehicle			X
X			
➢ ~~Ground-to-Air Passive Surveillance~~			
X			
➢ Homeland Security Command & Control			
X			
➢ Joint Adv Health & Usage Monitoring System			
X			
➢ Joint Area Clearance			X
X			
➢ Joint Distance Support & Response			
X			
➢ Joint Explosive Ordnance Disposal			X
X			
➢ Joint Intelligence, Surveillance, and Reconnaissance			
X			

Dec 2004

ACTD Historical Funding Profile
Budget Vs. Appropriation



Starting in FY 2001 Congress fully supports ACTD

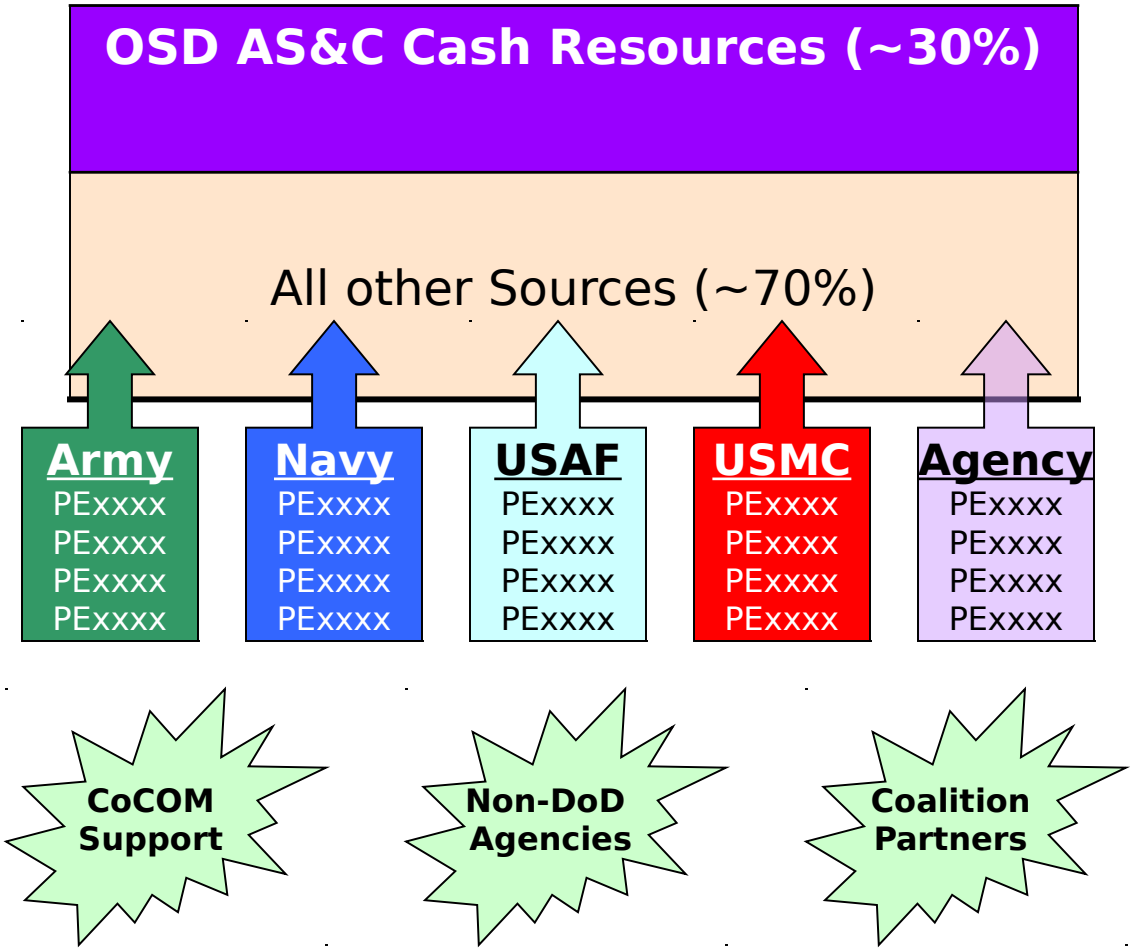
Can the Current ACTD business process be improved? – Current Model

Advanced Systems and Concepts

Challenges:

- **Front-end (start-up) and tail-end (transition) funding issues create serious PPBE challenges.**
- **Little incentive for Service participation as New ACTDs create immediate unfundeds.**
- **Significant start-up and demonstration delays after JROC decision: Avg 6 month delay waiting for Implementation Agreements.**
- **Many different Program Elements fund ACTDs (Little visibility at Service level—accountability challenges)**
- **Projects require sustained commitment of resources once initiated.**
- **Unfunded Requirements (UFRs) during execution cause significant risk and disruption as OSD tries to "share" the UFRs with stakeholders.**

Goal is to initiate ACTDs within months of a JROC approval. However, two year PPBE process creates Service challenge in funding new ACTDs. (Difficult to achieve before the third year)



ACTD → JCTD

3-5 year transition

- Time is right to take the best parts of the ACTD program and initiate a new business model…the **Joint Capability Technology Demonstration (JCTD)**

- **JCTD developed based on:**
  - **GAO Audit (2002): Break traditional barriers to transition "joint" technologies**
  - **Defense Science Board (2003): Strengthen the CoCom influence**
  - **Joint Capability Study (2004 "Aldridge Study"): Better "joint" business models**
  - **Internal OSD direction (2004-2005):**
    - **SECDEF/CJCS: *"Joint has become the rule--is no longer an occasional luxury" --- "Rapidly changing environment and Global War on Terror (GWOT) has created the need to develop Joint capabilities more rapidly"***
    - **Enhance the ACTD program & provide better visibility of funding**
    - **Leverage the Joint Capabilities Integrated Development System (JCIDS process) to establish an improved process for transitioning ACTDs to acquisition programs**
  - **Congressional influence (2005) : Maintain focus on the acceleration of innovative, relevant capabilities to meet most critical warfighter needs**

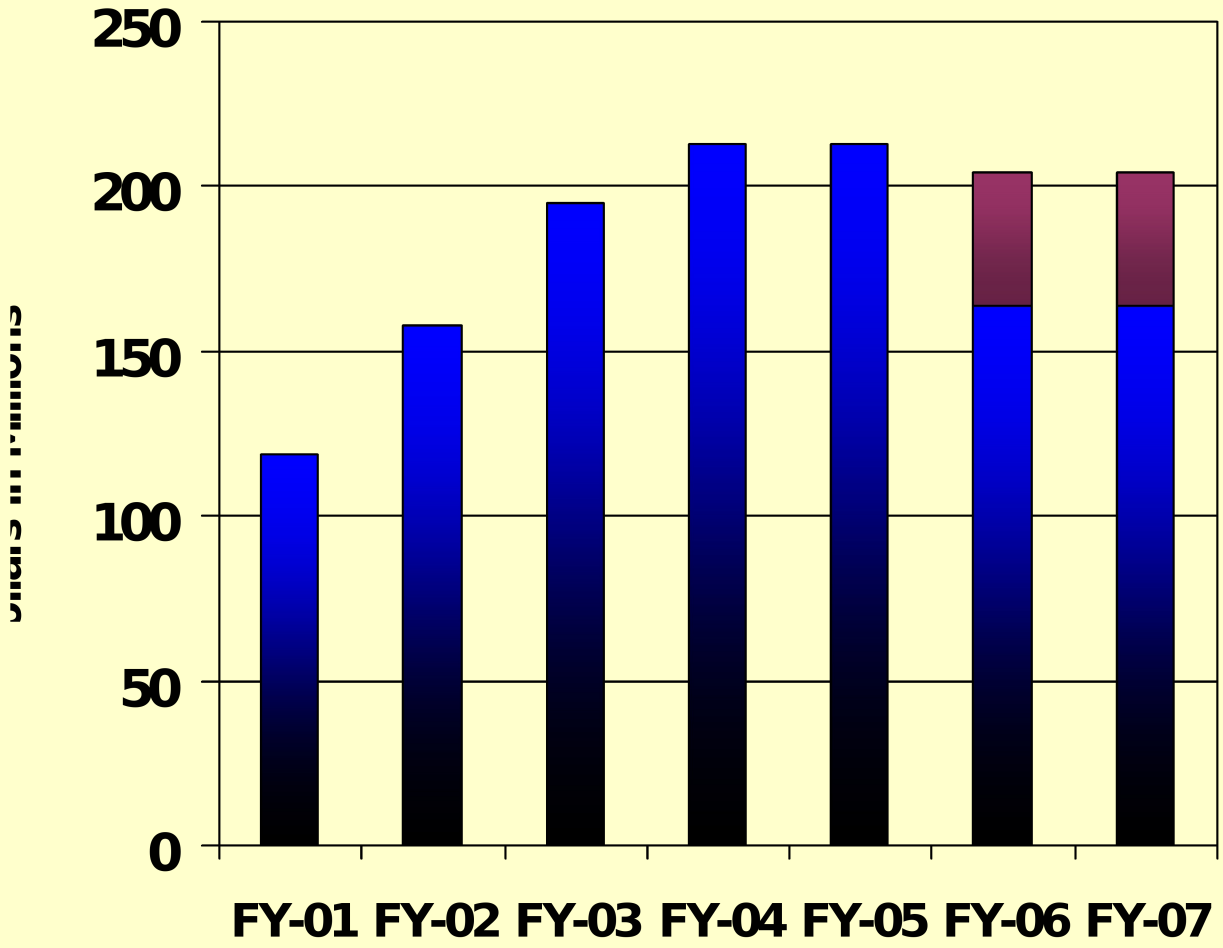
The JCTD program was initiated in the FY 2006 President's Budget

DUSD (AS&C) Direct Funding

ACTD & JCTD Programs

(Actuals & FY 2006 President's Budget)

As of February 2005



- JCTDs are resourced in RDT&E/DW (BA-3, BA-4, BA-5) and Procurement accounts

JCTD program initiated in FY 2006. Three to five year transition from ACTD to

JCTD/ACTD OSD Funding (FY 2006 President's Budget—$M)

OSD Shifts $40M from ACTD to JCTD to initiate the program

ACTD and JCTD Program Funding Summary	APN	BA	PE	FY-04	FY-05	FY-06	FY-07
Advanced Concept Technology Demonstration (ACTD)	RDT&E	3	0603750D8Z	212.570	212.915	163.649	163.744
Joint Capability Technology Demonstration (JCTD)	RDT&E	3	0603648D8Z			35.000	35.000
Joint Capability Technology Demonstration (JCTD)	RDT&E	4	0604648D8Z			3.000	3.000
Defense Acquisition Executive (JCTD Pilot Program)	RDT&E	5	0605648D8Z			1.000	1.000
Procurement (JCTD Pilot), Major Equipment-OSD Def Wide	Proc	1	0902198D8Z			1.000	1.000
Total JCTD:						40.000	40.000
Total ACTD and JCTD				213	213	203	204

Beginning in FY 2006, initiation of the JCTD process. 3-5 year transition period

New "Joint Capability Technology Demonstration" (JCTD) business process—

Proposed Funding Model

JCTD Overview

Advanced Systems and Concepts

- First two years of Resources fenced by OSD – Held in OSD PE. Most compelling JCTDs will be resourced (incentive created)
- Year 3 (if necessary) funded by all stakeholders
- Transition Year funded by OSD—allow time for Services to POM for transition
- OSD can "afford more risk" protecting scarce resources.
- DARPA funds included in centralization model to cement partnership between development and transition
- Unfunded requirements easier to address without Service or Comptroller intensive reprogramming actions in year of execution
- New Model will provide clear visibility of total JCTD Cash budgeted and executed (OSD/C, Congressional & GAO

FYDP Timeline (Based on 3 year Demo Phase)

1st & 2nd Year Funding	Year 3 Services Provide $$	Transition
	Spiral Technologies. Final demo all JCTDs in 3 years or less.	
OSD Provides at least 50% of the Resources during the first two years of the JCTD. JCTD PE 0603648D8Z	New Army JCTD PE New Navy JCTD PE New Air Force JCTD PE New Marine Corps JCTD PE New DARPA JCTD PE	OSD provides transition dollars for successful JCTDs (0604648D8Z)

Agency
PExxxx
PExxxx
PExxxx
PExxxx

Non-DoD Agencies

Coalition Partners

CoCOM Support

DAE Pilot program

BA-5 (0605648D8Z)

OSD Maj Equip Procurement (0902 5D8Z)

Limited number of Selected "Joint Peculiar" JCTDs may enter the DAE Pilot program. Most JCTDs will

ACTD-JCTD Wing Walk
Enhancing the Business Model for the Joint Customer

Combatant Commander remains the Primary Customer	
Advance Concept Technology Demonstration (ACTD)	**Joint Capability Technology Demonstration (JCTD)**
o **Final Demonstration: 3-4 years**	• **Final Demonstration: 2 – 3 years with spiraled-out capabilities.** **Impact: Mature capabilities demonstrated to the joint warfighter faster.**
o **Challenging ACTD selection process: CoCom near-term versus rigid PPBE 2 year resource process.**	• **Greater CoCom Focus through JCTD Selection Process:** Stakeholders have decision in resource allocation for funds already set-aside. **Impact: JCTDs maintain relevancy/purposely resourced for success.**
o **OSD provides limited funds: Services required to "break" programs to fund new capabilities.**	•**JCTD Resources (Quick Start):** OSD provides majority Service funding for the first two years of the JCTD. **Impact: Accelerate JCTD initiation and increase funding stability.**
o **Difficult to track ACTD funding in Service lines (multiple Program Elements).**	• **JCTD-specific Program Elements Created**. **Impact: Increase funding accountability and tracking. Provides time for Services to POM for selected JCTDs.**
o **ACTDs face difficult Transition challenges, creating "joint & coalition orphans."**	• **JCTD Transition stability: Funding across the Acquisition process. DAE pilot program** **Impact: Prevents delays and provides a strong**

Performance Metric Comparison
ACTD vs. JCTD

Performance Metric	ACTD	JCTD
Project Selection Focus	Threat Based: Shared Military Service and CoCom influence	Capability Based: Greater CoCom influence looking at nearer term **joint/coalition** needs..
Spiral Technologies	No Metric currently established	Spiral Technology available within **one year** of JCTD initiation.
Final Demonstration Completed (Starting Point: Approved ID)	3 to 4 years after initiation (Implementation Directive (ID) Signed)	50% completed by the end of the 2nd year. All JCTDs completed by the end of the 3rd year.
Shared Funding and Visibility of resources	OSD provides no more than 30% of the budgeted resources. Funding provided from many different program elements.	OSD provide significantly more funding (more than 50% depending on cost of the JCTD), especially in the first two years.
Military Utility Assessment (MUA) conducted by an independent activity	MUA traditionally tied to a specific planned exercise for evaluation	JCTDs not necessarily tied to an exercise. Greater flexibility to establish military utility via operational "real-world" demonstration or specifically designed test/venue

Source: FY 2006 President's Budget

Why Evolve ACTDs To JCTDs Now?

- **"It's the right thing to do": (ADM Fargo, USPACOM)**
  - **CoCom customers need an early voice in needs process that responds quickly.**
  - **AT&L can provide a compelling joint approach as an answer to:**
    - Starting fast (inside the PPBE process).
    - Prevents breaking Service programs at the start of each ACTD.
    - Addresses the "Valley of Death" between successful demonstrated capabilities & transition to acquisition/sustainment.
    - GAO, Congressional, DSB, and other studies which support the philosophy of the JCTD initiative.

- **The time is right:**
  - JCTD fits the transformation and GWOT initiatives of the Department
  - Directly supports the SECDEF's goals of shifting to a more rapid, joint

ACTD/JCTD Back-up Slides and Questions

"Finally, I will add that **we are encouraged by recent actions** taken by DOD to initiate a **joint concept technology demonstration business process** **as it is intended to meet joint and coalition forces needs** and promotes many of the good practices we outlined above. To be successful, this process must have the authority and clout to overcome traditional barriers and the tools necessary to drive a knowledge-based, evolutionary acquisition approach."

GAO Testimony before the HASC Subcommittee on Tactical Air & Land Forces by Michael Sullivan, Acting Director, Acquisition and Sourcing Management **(March 2005)**

Overview

Joint Capability Technology Demonstration (JCTD)
(Four parts to the 3-5 year initiative to transform the ACTD program to JCTD)

1. **Front-end incentive funds** create fair-share partnership. First two years of Service resources fenced in OSD. (JCTD PE will eventually replace ACTD PE)

   - **Incentive to participate without breaking Service core programs. Also provides stability of funding. The Best JCTDs "win" the resources.**

2. **Creation of new JCTD specific Program Elements (Defense Wide and Service)**
   (New D/W JCTD PE's have been created RDT&E BA-3/4/5)

   - **Visibility and Accountability of funds**
   - **Allows time for Services to POM for outyears as JCTD proves successful**

3. **One year of Transition funding** (New OSD JCTD PE in RDT&E BA-4)
   - **Bridge the S&T capability "Valley of Death" – DoD prepared to "catch" successful capabilities without destructive delays**

4. **Defense Acquisition Executive (DAE) Pilot program** – Transition "Joint Peculiar" systems into a fielded capability (New OSD PEs: RDT&E BA-5, OSD Procurement). Lays the groundwork for USD (AT&L) to pilot new acquisition models and look at ways to address joint challenges identified in the Joint Capability Study ("Aldridge Study").

   - **Tracking joint capability through acquisition into initial sustainment**

Resources were shifted from the ACTD program to initiate the JCTD business model

Quotes on Joint Needs

"The ability of the armed services – the Army, the Navy, the Air Force, the Marine Corps and the Coast Guard – to work together is increasing. It has to increase. Jointness has to become the rule and not an occasional luxury."

Secretary of Defense
Speech at the Association of the U.S. Army Annual Meeting,
Phoenix, Oct. 27, 2004

"The rapidly changing international environment and the global war on terrorism require that we create joint capabilities more quickly."

General Myers, CJCS
(Joint Force Quarterly: Summer 2002)

UNCLASSIFIED

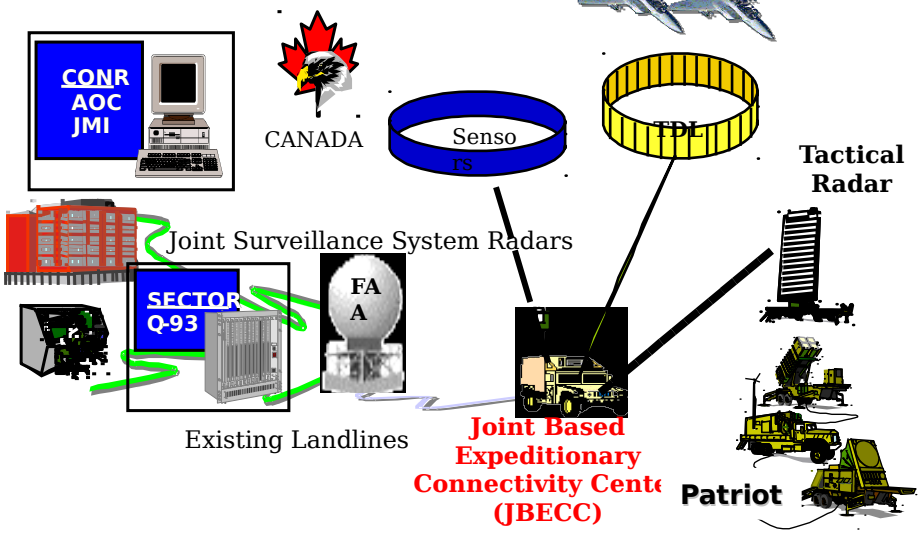
ADM Fargo (USPACOM)

"I'm writing in support of the AT&L JCTD initiative, which evolves the Advanced Concept Technology Demonstration Program and intends to stabilize start-up and transition funding for rapid development of Joint capabilities….We need a stable program that rapidly provides new Joint capabilities for demonstration, assessment, and operational use. The ACTD program has served us well. The JCTD initiative to stabilize funding and aid transition of new Joint capabilities, with minimal impact on Service programs, **is the right thing to do."**

Area Cruise Missile Defense (ACMD)

FY 2001 ACTD (Completed)

Problem: The continental US & North America lacks a robust capability to detect, track, and engage low altitude, low visibility cruise missiles, UAVs, and light aircraft. Current air defenses are 'perimeter-ized' and lack connectivity to various data sources and sensors.



Solution:

- Mobile Connectivity shelter (JBECC)
- Correlation Engines to process disparate data
- Comm Link into existing C4I networks
- Augment NORAD Air Defense
- Provide early detection of unidentified air tracks
- Connectivity to NORAD through tactical data links
- Link FAA, NORAD and 1st AF air defense forces

Benefits:

- Extensively used in Op Noble Eagle and Clear Skies
- Remains employed for National Capital Region air protection
- Employed for all Presidential CONUS travel
- Supported the 2004 G8 Summit and Republican National Convention
- Primary capability for Air Force Reserve/Air National Guard combat air defense patrols in CONUS

Expendable Unmanned Aerial Vehicle (EUAV)

FY 2002 ACTD

Problem: Lack of low cost, expendable tactical surveillance and payload dispensing capabilities for counter-drug and other operations.

Solution: Tactical surveillance, payloads, and payload dispensing technologies on low-cost, all-weather autonomously guided, expendable/recoverable unmanned vehicles.

Benefits:

- Much lower cost (75% less) than tactical UAVs
- Permits ready field access to ISR info when higher fidelity systems unavailable or not cost effective to risk their loss
- Employed extensively in OIF and OEF
- TERN and MAKO UAVs transitioned to SOCOM

ACTD – Small Business Success Stories Expendable Unmanned Aerial Vehicle

XPV-1 Tern and MAKO UAVs Employed Successfully in Operations Enduring and Iraqi Freedom

- **NAVMAR Applied Science (Jessup, MD)**
  - **UAVs and air-delivered sensors**
  - **$9.3M, with potential $10M follow-on**
- **Phoenix Worldwide Industries (Miami, FL)**
  - **Air-delivered sensors**
  - **$1.5M, with potential $2M follow-on**
- **Cloud Cap Technology (Hood River, OR)**
  - **Autopilot systems**
  - **$100K, with potential $200K follow-on**
- **Advanced Ceramic Research (Tucson, AZ)**
  - **Advanced composite UAVs**
  - **$300K, with potential $500K**

Theater Support Vessel (TSV)

FY 2003 ACTD

Problem This Solves: Need for a joint expeditionary capability to deliver combat ready units configured for immediate employment in JOA.

- High Speed Rapid Littoral Maneuver and Force Closure
- Rapid Unassisted Ingress and Egress Enables Austere Port Operations
- Reduction of Reception and Staging Times in Theater of Operations
- Mitigate Anti-Access and Area Denial Efforts

Participants:

OM: CENTCOM, CASCOM (Deputy)
TM/XM: PEO CS&CSS, PM Force Projection, PM Army Watercraft Systems
Independent Assessor: AEC
Sponsor(s): US Army

Schedule:

Independent Assessments/ LUAs – 2QFY04 - 4QFY05
MUA – 4QFY05

Solution:

- High Speed Vessel Capable of:
  - Intra-Theater Movement of Combat Ready Units
  - Ship-to-Ship and Ship-to-Shore Operations
  - Supporting Operations in the Littorals

Status:

- OEF/OIF/Joint Military Exercises Support
  - Sailed over 80,000 NM, delivering 1,385 troops and 7,445 cargo tons
  - FY05 – RSOI/Focal Point, Cobra Gold, Talisman Sabre, Bright Star 05
  - Self-Protection Demo
- Program of Record in the Joint HSV Program Office
  - Continuing to spiral operational products
- C4ISR Upgrades – Battle Command Center/EMPRs
- Scalable Self Protection System

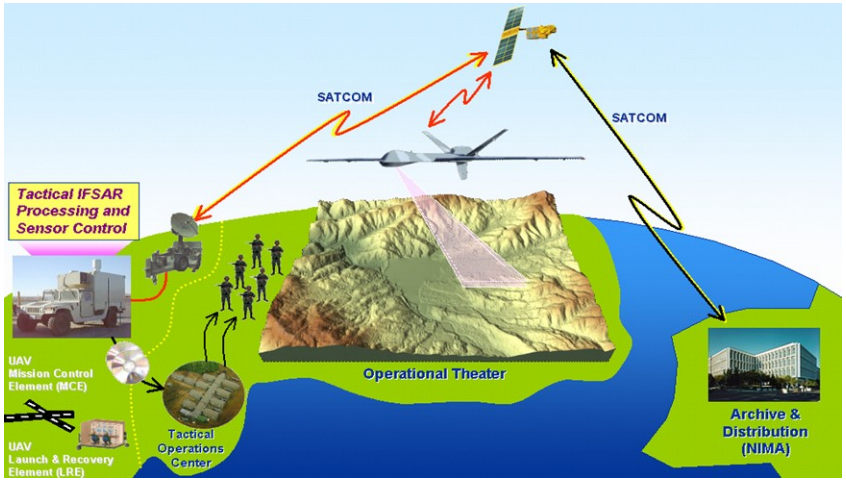
April 2005

Tactical Interferometric Synthetic Aperture Radar (IFSAR) Mapping

FY 2003 ACTD (Cancelled)

Problem(s): U.S. Forces do not have the capability to rapidly collect High-Resolution Terrain Information (HRTI) and produce wide area high-resolution digital elevation models on short notice.

Proposed Solution(s): The IFSAR Mapping ACTD would demonstrate a capability to rapidly collect and generate high-resolution terrain information (HRTI) data from a mid-altitude unmanned aerial vehicle (UAV).



Status: **ACTD cancelled** *due to excessive cost growth and programmatic risk.*

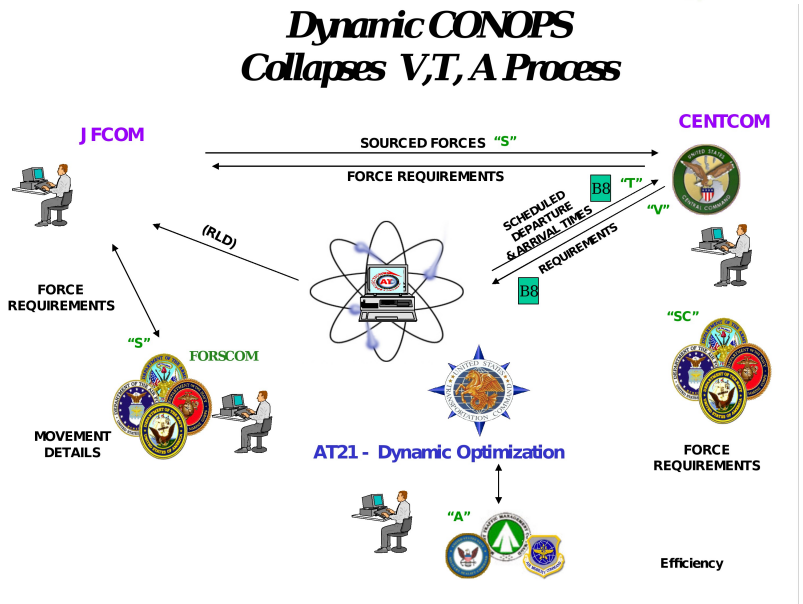
Could not gain access to Global Hawk (environmentally controlled payload bay), so design was re-targeted to Predator B (payload bay NOT environmentally controlled). Increase in scope to modify radar design coupled with programmatic delays resulting from difficulty in obtaining commitment for

Status con't: Currently reviewing options using remaining funds to assess what portion of USSOUTHCOM's immediate needs can be met.

Agile Transportation for 21st Century (AT)

FY 2002 ACTD

Problem: The DTS has stovepipe processes for managing movement requirements, lift asset availability, and execution planning in separate environments and no capability to match global movement requirements against available lift assets to produce an optimized transportation schedule that meets warfighter delivery requirements.



Solution: Insert COTS technologies, automate and streamline business processes, and utilize commercial best practices for supply chain management.

Benefits:

- Improve Force Projection and customer confidence
- Optimize and analyze strategic/operational movement requirements
- Determine proposed mode selection, consolidations and routings
- Maximize asset utilization and cost

What are Joint Capabilities?

AS&C Program Perspective

Multi-Service Core Military Capabilities.

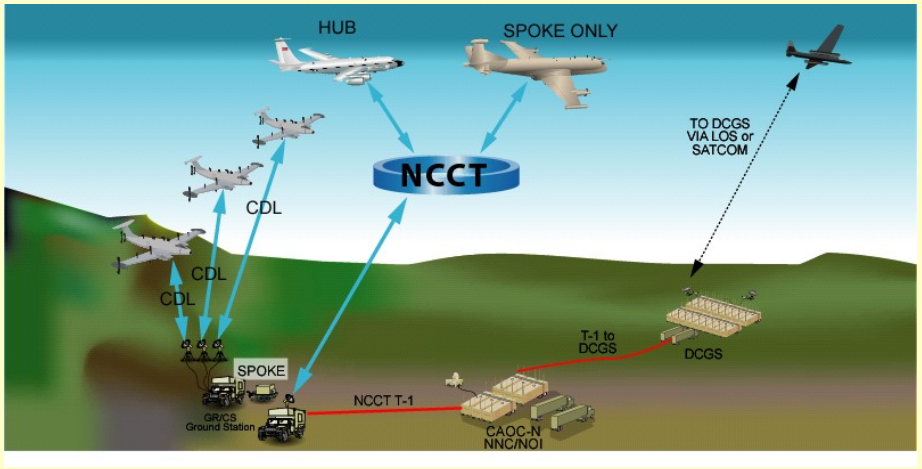
Common denominator Military forces provided worldwide as self-integrated, self-sustaining echelons by the Services.

(Global Positioning System, Movement Tracking System)

Joint Enabling Capabilities.

Additional capabilities required by warfighters to exercise joint command, and to enable core military elements to function effectively as a coherent joint force.

(Network Centric Operations, Common Operational Picture)



Unique Regional/Specified Mission Requirements.

Capabilities beyond common core military capabilities required by warfighters to effectively function in operational environments associated with assigned regional or specified missions.

(Foliage Penetrating Radar,

Joint is an inter-Service reliance acting together as one - not a patchwork of deconflicted Service operations.

(General Tommy Franks, excerpts from *American Soldier*)